Valat Jones Scholarship
University of Oxford Department of Psychiatry
Available to start in October 2016

The Department is pleased to invite applications for the Valat Jones Scholarship to conduct research towards a doctoral degree at the University working with Professor Simon Lovestone. This is a fully-funded scholarship available for outstanding applicants from any country.

Project Description

Clusterin, or Apolipoprotein J (ApoJ), is the second susceptibility gene for Alzheimer´s disease to be unequivocally identified and, given that ApoE was the first, understanding the role of these apolipoproteins is critically important. We have previously found that there are higher levels of the protein in blood and that levels correlate with cognitive decline in Alzheimer's and furthermore have demonstrated that amyloid-β (Aβ) induces alteration in Clusterin protein trafficking in neurons and that knock-down of the gene is neuroprotective. We also demonstrated that this alteration in Clusterin trafficking induces a pathological cascade resulting in tau phosphorylation, synaptic loss and neurotoxicity. We now plan to bring these areas of research together: understanding how the genetic changes in the gene that alter risk of disease also alter Clusterin transport between the cytoplasm and external cellular space; understanding how this altered trafficking affects the cellular pathogenesis; and, most importantly, building on this knowledge to establish *in vitro* models of disease for drug development.

The student will use human induced pluripotent stem cells (iPSCs) combined with CRISPR editing to examine the function of clusterin in neural cells and its role in neurodegeneration. Working closely with others in the Lovestone group and the newly formed ARUK Oxford Drug Discovery Institute, the student will examine a range of phenotypes in these cells and acquire skills in neuroscience, cell and molecular biology and depending on progress, the translation of this science into target identification and development. This studentship is jointly funded with Astra Zeneca and the student will be co-supervised by a senior scientist from the company and will have the opportunity of working at a Astra Zeneca site at an appropriate time in the project depending on progress.

The University of Oxford's world leading research has an international reputation and provides a wide range of resources including libraries, laboratories and other specialist facilities attracting interest from students all around the world.

Applicants should have, or expect to gain, at least an upper second class honours degree or equivalent in an appropriate subject. The scholarship stipend will be £17,191 (with 3% inflation year on year).

For enquiries please contact: Tracy Lindsey, Department of Psychiatry, Warneford Hospital, Warneford Lane, Headington, Oxford. OX3 7JX tracy.lindsey@psych.ox.ac.uk.

Applications should be sent with a CV and covering letter to Tracy Lindsey tracy.lindsey@psych.ox.ac.uk or to Tracy Lindsey, University Department of Psychiatry, Warneford Hospital, Warneford Lane, Headington, Oxford. OX3 7JX

Deadline for submission of applications: Friday 4th March by 12.00 noon.
Interview date: Friday 24th March 2016
Studentship Code: 16PSYCH02WEB